

AMENDMENTS TO THE CLAIMS

Please cancel Claims 7 and 9 and amend Claims 1 and 8 as follows.

LISTING OF CLAIMS

1. (currently amended) A controlled atmosphere furnace comprising
a conveyor device for continuously transporting articles to be brazed, each
of the articles being coated with a flux;
a preheating chamber for preheating the article and a brazing chamber for
brazing the article, ~~[[and]]~~
a gas burner which creates combustion gas;
a circulation fan provided in a closed-loop flow path for the combustion
gas extending between the gas burner and the preheating chamber; and
an atmosphere shutter chamber disposed forward and rearward of the
brazing chamber for preventing atmospheric gas in the brazing chamber from flowing
out, one of the atmosphere shutter chambers being disposed between the preheating
chamber and the brazing chamber, wherein
the article conveyed through the preheating chamber is quickly preheated
by ~~[[the]]~~ combustion gas, circulating in the preheating chamber in a closed-loop flow
path, close to a predetermined temperature and within a predetermined time; and
~~a gas burner and a circulation fan are provided in the closed-loop flow~~
~~path for the combustion gas.~~
a tip nozzle of a circulation duct defining the closed-loop flow path for
circulating the combustion gas directs the combustion gas onto a portion of the article
being heated.

2. (cancelled)

3. (previously presented) A controlled atmosphere furnace as defined by claim 1, wherein the quick heating is carried out by controlling the gas burner and the circulation fan.

4. (original) A controlled atmosphere furnace as defined by claim 1, wherein a speed of the conveyor device is controlled so that the article passes through the preheating chamber within a predetermined time.

5. (original) A controlled atmosphere furnace as defined by claim 1, wherein the atmosphere shutter chamber has a plurality of metallic curtains.

6. (original) A controlled atmosphere furnace as defined by claim 1, wherein the predetermined time is approximately five minutes in view of the deterioration degree of flux in the atmosphere and the growth of oxide layer on the article, and the predetermined temperature is approximately 450°C.

7. (cancelled)

8. (currently amended) A method for heating a controlled atmosphere furnace used for preheating articles to be brazed, which are continuously supplied to the atmospheric furnace, prior to being brazed, wherein

[[the]] each article is coated with a flux and is quickly preheated to a predetermined temperature, with forcibly circulated combustion gas from a gas burner, within a predetermined time determined ~~in view of~~ based on the deterioration degree of brazing flux in the atmosphere and the growth of oxide layer on the article[[.]]; and

the predetermined time is approximately five minutes and the predetermined temperature is approximately 450°C.

9. (cancelled)